

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

20 JUL 1942

Date of writing Report

19

When handed in at Local Office

17 JUL 1942

Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey Dec 18 '41 Last Survey July 14 1942

(Number of Visits 72)

on the

S/S EMPIRE SOUTHEY

Tons Gross 7041

Net 4954

Built at Sunderland

By whom built

Short Bros Ltd.

Yard No. 471

When built 1942

Engines made at do.

By whom made N.E. Mar. Eng. Co. (1938) Ltd. Engine No. 4020

When made 1942

Boilers made at do.

By whom made do.

Boiler No. do.

When made do.

Registered Horse Power

Owners M.O.W.T (C. Runaiman & Co. Ltd)

Port belonging to Sunderland

Nom. Horse Power as per Rule 510

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

Trade for which Vessel is intended

General

ENGINES, &c.—Description of Engines

Triple Expansion

Revs. per minute 67

Dia. of Cylinders 24 1/2", 39", 70"

Length of Stroke 48"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals

as per Rule appd. 14 1/2"

Crank pin dia. 14 3/4"

Crank webs

Mid. length breadth

shrunk

Thickness parallel to axis 9"

Intermediate Shafts, diameter

as per Rule appd.

as fitted 13 5/8"

Thrust shaft, diameter at collars

as per Rule appd.

as fitted 14 1/4"

Tube Shafts, diameter

as per Rule

Screw Shaft, diameter

as per Rule appd.

as fitted 15 1/4"

Is the tube

screw

shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule appd.

as fitted 13/16" 25/32"

Thickness between bushes

as per Rule appd.

as fitted 21/32"

Is the after end of the liner made watertight in the

propeller boss

yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners

Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft no

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 5' 1"

Propeller, dia. 17' 10 1/2" Pitch 15.6

No. of Blades 4

Material C.I.

whether Moveable not

Total Developed Surface 114 3/4 sq. feet

Feed Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 27"

Can one be overhauled while the other is at work yes

Feed Pumps

No. and size 2

9 1/2" x 7" x 21"

Pumps connected to the

No. and size 1, 10 1/2" x 13" x 24" & 1, 9 1/2" x 7" x 21"

How driven

Steam

Main Bilge Line

How driven

Steam

Ballast Pumps, No. and size 1

10 1/2" x 13" x 24"

Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room Eng. Rm. 2 & 3" dia.

Boiler Rm. 2 & 3" dia.

In Pump Room

In Holds, &c.

2 & 3" dia in each of Holds nos 1, 2,

3, 4 & 5. Tunnel well 1 & 2 1/2" dia

Dry tanks 2 & 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 & 9" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size 1 & 5" dia. & 1, 3" dia. portable Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-bones yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes

Are all Sea Connections fitted direct on the skin of the ship

yes

Are they fitted with Valves or Cocks

yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

yes

Are the Overboard Discharges above or below the deep water line both

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

What Pipes pass through the bunkers

fid bilge suction

How are they protected

bilge timbers

What pipes pass through the deep tanks

Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

yes

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another

yes

Is the Shaft Tunnel watertight

yes

Is it fitted with a watertight door

no

worked from

MAIN BOILERS, &c.—(Letter for record 5)

Total Heating Surface of Boilers 7248 sq. ft.

Is Forced Draft fitted

yes

No. and Description of Boilers 3 Single Ended Cylindrical

Working Pressure 220 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

PLANS.

Are approved plans forwarded herewith for Shafting 2/10/41

Main Boilers 5/9/41

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes

State the principal additional spare gear supplied

1941. Dec. 18, 20, 26, 42. Jan. 3, 12, 15, 23, 24. Feb. 3, 7, 12, 14, 17, 23, 25, 26. Mar. 8, 6, 12, 18, 23, 24, 25, 26. Apr. 1, 2, 8, 9, 10, 11, 13, 14, 16, 17, 20, 21, 22, 23, 24, 27, 28, 29, 30. May 1, 4, 5, 6, 8, 9, 11, 14, 15, 16, 19, 21, 22, 24. June 1, 2, 3, 4, 5, 6, 8, 11, 14, 23. July 7, 9, 12, 14.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 73

Dates of Examination of principal parts—Cylinders 21/28/30/4/42 Slides 15/5/42 Covers 15/5/42

Pistons 27/4/42 Piston Rods 22/4/42 Connecting rods 29/4/42

Crank shaft 1/5/42 Thrust shaft 1/5/42 Intermediate shafts 3/6/42

Tube shaft — Screw shaft 16/5/42 Propeller 16/5/42

Stern tube 19/5/42 Engine and boiler seatings 19/5/42 Engines holding down bolts 3/6/42

Completion of fitting sea connections 19/5/42

Completion of pumping arrangements 23/6/42 Boilers fixed 23/6/42 Engines tried under steam 23/6/42

Main boiler safety valves adjusted 23/6/42 Thickness of adjusting washers Port 5/16; Centre 3/8; Starboard 13/32; Starboard 3/8.

Crank shaft material Steel Identification Mark 5516 Thrust shaft material Steel Identification Mark 5554

Intermediate shafts, material Steel Identification Marks 5540(2) Tube shaft, material — Identification Mark —

Screw shaft, material Steel Identification Mark 5554 Steam Pipes, material Steel Test pressure 660 lb. Date of Test 11.6.42

Is an installation fitted for burning oil fuel NO Is the flash point of the oil to be used over 150°F. —

Have the requirements of the Rules for the use of oil as fuel been complied with —

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo NO If so, have the requirements of the Rules been complied with —

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not required.

Is this machinery duplicate of a previous case Yes If so, state name of vessel Empire Beats

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good. The machinery has been efficiently fitted on board and tried under working conditions with satisfactory results and is eligible, in my opinion, for the

NOTATION + L.M.C. 7.42., C.L., 39.B. 220 lb F.D.

L. D. Horne

The amount of Entry Fee ... £ 6: : When applied for, 17 JUL 1942

Special Specification ... £ 100: 10: 17 JUL 1942

Donkey Boiler Fee ... £ 25: 2: 17 JUL 1942

Travelling Expenses (if any) £ : : When received, 19

Committee's Minute FRI, 24 JUL 1942

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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